# IR-DRIVEN DYNAMICS OF THE 3-AMINOPHENOL-AMMONIA COMPLEX

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We report on gas-phase experiments investigating the predissociation and possible IR-driven isomerization of the 3-aminophenol-ammonia complex (3-AP-$NH_3$). A molecular beam of 3-AP-$NH_3$ is vibrationally excited with pulsed IR light, initiating an intramolecular vibrational redistribution and subsequent dissociation. The 3-AP fragment is then probed state-selectively via multiphoton ionization (REMPI) and time-of-flight mass spectrometry. Of particular interest is an IR-driven feature which we associate tentatively with a trans-cis isomerization process. We see clear correlation between the excitation of specific vibrational modes (namely the $NH_3$ symmetric and OH stretches) and the presence of this feature, as evidenced by IR-action and IR-depletion spectra. The feature persists atop a broader signal which we assign to the predissociation of the complex and whose cutoff in REMPI-action experiments provides an upper bound on the dissociation energy for 3-AP-$NH_3$.